Kuhnt and others, but the Ogston-Luc probably meets the indications of most chronic cases. There are several points that are very interesting in this case. First: The number of sinuses involved and the long duration of the trouble. Second: The absence of discharge into the nasal cavities. Third: The absence of polypi within the nasal cavities. Fourth: The communication of one sinus with another, viz.: that the right frontal sinus discharged into the antrum, and I am rather of the opinion that the posterior ethmoid cells did also.

There are a variety of forms of accessory sinus disease, and I think Bosworth's classification covers best the cases one meets clinically. He divides them into five groups:

1. Where there is myxomatous degeneration without suppuration. In this class of cases there are no polyps, properly speaking, but a swelling of the mucus membrane of the middle turbinated, which is soft and has the characteristic color of myxomatous tissue. Such a condition is generally a prelude to polyps.

2. Extracellular myxomatous degeneration, with intracellular suppuration. This form succeeds the last mentioned. Besides the transformation of mucus membrane, there is a discharge of pus from the ethmoidal cells.

3. Purulent ethmoiditis with nasal polyps.

4. Intracellular polpys without suppuration. In an example of this type, the author found a middle turbinated enlarged to double its usual size. Removal of the bony layer of ethmoid revealed the presence of a gelatinous polypus.

5. Intracellular polypi complicated with suppuration. This seemed to represent a more advanced state of the last mentioned.

My case would seem to be well covered by the fourth group just passing over into the fifth. That is, there had been myxomatous degeneration of the lining membrane of all these sinuses with intracellular formation of polypi for several years, without suppuration, only recently passing over into necrosis of tissue and the production of pus, which had not yet become profuse enough to discharge.

One finds frequent reference to cases of closed ethmoidal empyema, but I have not been able to find any reference to a case such as I report, where all the sinuses could be regarded as in a state of closed empyema.

The Public Health and Marine Hospital Service reports three deaths from probable plague during the month of January. The last one was case 113. No infected rats have been found for some time, though numbers of them are caught and examined for pest infection.

It is said that there are now 29,200 doctors in Germany, the number having more than doubled since 1876; in the same period the population has increased only one-sixth.

OBSERVATIONS ON THE PROSTATE GLAND IN ITS RELATION TO GONORRHEA.*

By MARTIN KROTOSZYNER, M. D., San Francisco.

THE literature on this subject contains many contradictory statements as regards frequency, etiology, and pathological classification. Important points, especially in the prognosis and treatment of gonorrheal prostatic affections, are mooted and open to discussion. Therefore it appeared timely to the writer to review his own material and to compare his deductions and conclusions with those of others experienced in this field.

About ten years ago text-books uniformly dealt with two pathological processes of the prostate as sequels of gonorrhea—the prostatic abscess and the spontaneous appearance of prostatic juice at the meatus or prostatorrhea.

Prostatitis, as a complication of a chronic gonorrheal urethritis was then practically unknown. Its coincidence was first established by Finger and Posner, who proved a coexisting prostatitis as diagnosticable by palpation of the gland per rectum and microscopic examination of its expressed juice. By these means the infection to the female genital apparatus in cases of an apparently cured chronic gororrhea could be traced to the secretion of the diseased prostate pressed out at the moment of ejaculation. The anatomic basis for Posner's investigations was furnished by Finger, who in a number of cadavers of men, in which ante mortem a chronic urethritis was observed, found the prostate gland to be the seat of periglandular as well as endoglandular infiltrations. Particularly important was the fact that in a large percentage of cases examined an obstruction of the ejaculatory ducts by invasion of round-cells was found as a proof of retained inflammatory and infectious material that at any provocation, especially in cohabitation, could be thrown to the surface.

In the majority of instances it is unfortunately impossible to ascertain the onset of gonorrheal prostatitis, no characteristic or pathagnomonic symptom pointing to the invasion of the prostate. The diagnosis of a coexisting prostatitis in gonorrheal urethritis cannot be made through clinical observations, but must be established by palpation of the prostate and macro- and microscopic examination of its secretion. Again and again one will be confronted with cases where no symptoms, or very vague symptoms, difficult in their interpretation in connection with any particular organ of the genito-urinary tract, are present, and where the palpatory evidence of the gland and careful examination of the juice will demonstrate pathological material of appalling gravity.

* Read before the San Francisco County Medical Society.

Statements of various authors differ materially as regards the frequency of prostatitis in gonorrhea. Some regard every gonorrhea invading the posterior urethra as coinciding with involvement of the gland. In this connection Frank's and Bierhoff's reports deserve mention. The former found in 210 and the latter in 151 cases of posterior urethritis, the prostate involved in 100 per cent, while Colombini and Goldberg only found between 30 and 50 per cent in their material. In my cases I have not because in many cases with a profuse urethral discharge it was impossible to obtain prostatic fluid that was not mixed with secretion from the urethra, and also because it included many chronic and tenacious cases of posterior gonorrhea where inflammatory conditions of the deeper appendages of the urethra may have existed previous to my observation. I am, though, justified in stating that in at least 50 per cent of my cases an involvement of the prostate was diagnosticable. In only a small number of my patients a feeling of fullness in the prostatic region was complained of, while other subjective symptoms (tenesmus, frequent painful micturation, spasmodic pains at the end of urination or appearance of blood or pus at the end of micturation) seemed to depend upon the condition of the urethra and the intensity of the inflammatory process in the prostate, either in its totality or in some part of it. As all these symptoms in the majority of cases were absent, the diagnosis was only made possible by palpation and examination of prostatic fluid.

Palpation revealed varying results as to the form, size and consistency of the gland. The prostate is found to be large, of medium or small size. We are still lacking a trustworthy method that enables us to exactly measure the gland. The gland may be either hard or soft and the difference in consistency may extend over the whole organ, or only a limited portion. Between the hard knots one often feels soft doughy places; rarely is palpation of the gland painful to the patient. Repeatedly the gland appeared fairly normal upon palpation, while the macro- and microscopical examination of the expressed juice prove the evidence of diseased foci. Rarely only a gland that appeared involved upon palpation did not reveal further pathological material through examination of its secretion. In those cases, as a rule, little or no secretion was obtainable, because it either remained in the posterior urethra, between the two sphincters, or it was found afterward in the bladder. For these cases the method that I published ten years ago proved diagnostically valuable: Let the patient urinate at first in 2 glasses, keeping a portion of urine in his bladder. As a rule these first two portions appear to be almost void of shreds, pus, etc. Then the prostate is pressed out and immediately afterward the last portion of urine is voided, which will be found cloudy and turbid, containing abundant material of an infectious character. It must, though, not be forgotten that after ejaculations, pollutions, or where through periglandular infiltration an obstruction within or outside the ducts is present, no or very scanty prostatic secretion is obtainable. If the secretion in such cases is merely furnished by a healthy acini, no pathological data, macro- or microscopically, will be ascertained. These are rare exceptions and upon further observation will soon be diagnostically cleared up.

The macroscopic features of the expressed fluid are differently described by various authors. I agree with Goldberg, who points out as most characteristic of the diseased fluid its not being homogenous in its aspect. We do not see when drop after drop falls upon the object-cover an equally fine emulsion, but rather a conglomeration of unequal corpuscular elements of different consistency. In other words, while the normal gland secretes a milk-like secretion, the diseased one furnishes a fluid similar to that of turbid, floccular water.

It is erroneous to assume that a gland apparently normal upon palpation will always secrete fairly normal macroscopical fluid, because not rarely from such apparently healthy glands an abundant milk-like gelatinous secretion is expressed, that microscopically shows all evidences of infectious material.

Microscopically the most important findings are given in the appearance of pus cells in abundance. The presence of clumps of round cells is particularly noteworthy and is justly considered the most important evidence of an existing prostatic involvement. Spencer and myself found some round cells in normal prostates in individuals with no gonorrheal history, in one case even blood corpuscles and pus cells more numerous than usual in a young man with a normal prostate expressed the morning after venereal excess, but we never found these characteristic clumps of pus cells that are pathognostic for an existing prostatitis. Increase in epithelial cells is considered by some authors as a pathological symptom. I have found this symptom missing in quite a number of my slides. Absence or decrease of fat globules is certainly in my experience of diagnostic value. Since in the healthy gland fat is always found in abundance, its absence or decrease must necessarily be interpreted as a pathological phenomenon. Gonococci are not easily demonstrated in prostatic fluid. The first six months after the onset of the infection they may be found, and even at this period one has to search several slides before a solitary or a few pairs of unmistakable gonococci—with the aid of Gram's method—are recognized. Later they are very rarely

to be seen. I agree with Goldberg, who claims that gonococci in the prostate perish after a certain period. Whoever has devoted time and pains to staining specimens of prostatic fluid will admit that he never saw the abundance of intracellular specific diplococci as noticeable in urethral secretion. Often the form and staining quality of microörganisms are such that a correct dagnosis, to say the least, is doubtful.

The statement of many authors that autoreinfection quite generally occurs from hidden foci in the prostate can only be accepted for those rare cases where a coexisting urethritis can be excluded, which in reality was present in the majority of my observations. In cases, for instance, where anamnestically repeated gonorrheal infections could be ascertained, it seems doubtful whether reinfection was due to old foci or or to a fresh involvement of the prostate. Wherever recurrent urethral catarrhs with gonococci are rapidly cured by prostatic massage with consecutive irrigations of the whole urethral canal without a catheter, we must assume the infectious material to be deposited in the more superficial parts of the prostatic ducts. Every experienced urologist knows that whenever the glandular tissue of the prostate is once invaded by infectious material, a successful treatment s very tedious and a cure a matter of grave doubt. In time the gonococci will disappear, but the other microscopic findings of pathologic note remain stationary, especially clumps or nests of round cells will appear on slides taken from patients who have been treated for years. Further observations taught me that these prostates cease to be infectious in time. I therefore don't share Finger's radical view, who refuses permission to marry to his patients who, after a chronic posterior urethritis, do not show normal prostatic juice on microscopical examination, i. e., no pus cells nor gonococci. If, after repeated examinations, I do not find gonococci, I do not object to matrimony, even if the slides show abundant round cells; results prove my procedure to be correct.

Neurasthenia is often a sequel of gonorrheal prostatitis; a fact not sufficiently appreciated in its far reaching consequences by the general practitioner. A conservative estimate proves about 20 per cent to 30 per cent of all cases to be future neurasthenics. Frequently the nervous affection is based upon temporary impotence. Vecki, in his excellent monograph on sexual impotence, points to the frequent coincidence of temporary impotence with chronic gonorrhea, but, to my mind, does not sufficiently accentuate the frequency of decrease in sexual power observed in chronic gonorrheal prostatitis. Here gratifying results may be obtained by a rational local and general therapy.

Goldberg has lately attempted to classify the different forms of chronic gonorrheal prostatitis, but I fear the acceptance of his classification will be marred by its being too numerous and complicated. Clinically, I differentiate between a total parenchymatous prostatitis and the prostatic abscess (where the gland is invaded in its totality) and a partial or follicular form (where only uarts of the gland are diseased). It seems also proper to divide between a prostatitis with and that without a coexisting urethritis. Symptomatically, I have found two large groups predominate, viz.: Latent chronic prostatitis with subjective symptoms of various character (polla kiuria, imperious or spasmodic tenesmus, etc.) and that form of prostatitis as observed in sexual neurasthenics. This classification is still lacking in simplicity, although the rare forms of gonorrheal prostatitis are purposely not included.

The treatment can only produce good results if based upon an exact diagnosis and carried out by a tactful and experienced physician. We must, as Leyden teaches, bear in mind not to treat the disease only, but the individual patient. The prostate being a most important sexual organ, it is apparent that any of its pathological affections will be complicated with grave nervous manifestations.

Active treatment of the prostate should be delayed until acute inflammatory conditions have abated. Much, though, can be done during this period by rational internal and hydropathic treatment (salol, diaretics, prolonged hot sitzbaths).

In local therapy massage still occupies the first place, and if done carefully at the right time, and at correct intervals, according to the symptoms of each individual, it certainly is a powerful remedy, though I am under the impression that this procedure is often carried out without strict indications. This indication is generally present whenever infectious and stagnating secretions are retained in the prostate, which could not or would not be evacuated spontaneously. Guépin warns against the promiscuous application of massage, as fraught with deleterious results if done without delicacy and on strict indications, and I cannot add anything new to the technique of massage which has been repeatedly described in recent publications on the subject. No instrument can or should replace the finger in massaging the prostate, as its touch is indispensable in gauging the intensity of the procedure for hard knots or soft spots; for large succulent glands that squirt out abundant watery discharge on slight pressure, or for hard fibroid organs that will hardly yield a drop to a rather forcible massage carried over several minutes. How to massage, when, how long and at what intervals are points that are only learned with growing experience.

In cases with a coexisting urethritis, massage is followed by irrigation of the total urethra with a nitrate of silver solution 1-600 to 1-500. Whenever a urethritis is present with infiltrated areas in the canal, massage is followed by dilatation of the urethra; in the beginning with steel sounds and later with Kollmann's dilators with rubber coat. The whole urethra is afterwards either irrigated or to circumscribed infiltrated areas of the posterior urethra instillations of nitrate of silver are made, one-half to 6 per cent. Lately I have used for most obstinate cases Koilmann's irrigation dilators and am more satisfied with my results. In spite of what is claimed for the efficacy of new silver salts I have had the best success with nitrate of silver.

In acute and subacute forms of prostatitis I can advocate local applications of hot water through Artzberger's instrument; for chronic forms with nervous manifestations the double-channeled instrument should be used that permits the application of hot and cold water and its repeated change at the same sitting. Suppositories containing an astringent (ichthyol) or a resorbent (iodid of potash) drug are generally quickly absorbed by the rectum and in my experience without value; medicated clysmas for the same purpose are not borne well by the patient, but deserve to be tried in tenacious cases.

For local application of electricity, I use an electrode as indicated by Vertuhn, which represents a slight modification of an ordinary button electrode. The other padded electrode is placed upon the perineum. I generally apply mild faradization and never longer than two to five minutes.

Most important is the general roborative and especially the psychical treatment of neurasthenic symptoms. Here the physician's tact and experience have to decide whether a local treatment will be beneficial or harmful to the patient, who, in his nervous, or rather hypochondrical state, is prone to overestimate the pathological importance of slight local symptoms, as for instance, the appearance of a morning drop. Many patients have been converted into confirmed sexual neurasthenics by local overtreatment, while on the other hand, a careful local treatment and removal of slight symptoms may have an excellent influence on the patient's general nervous system.

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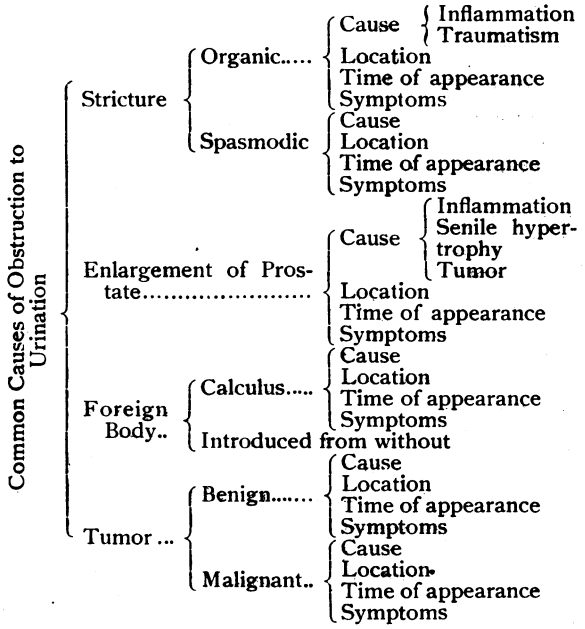
CONTRACTURE OF THE VESICAL NECK*

By R. L. RIGDON, M. D., Chief of Genito-Urinary Clinic, Cooper Medical College.

THE regular and proper performance of the urinary act is so important to the well-being of the individual that any interference with it at once demands attention. There are many causes operating to bring about urinary disturbance, but in this paper we consider but one, that of obstruction, and this question is itself restricted to very narrow limits. Obstruction may exist at any point within the urethra, or may be situated within the bladder at the internal meatus. The accompanying diagram gives the more common forms:



This classification, while by no means complete, serves as a working basis for clinical purposes, and most cases can be assigned to one or the other heading. It was the working scheme adopted by the writer in investigating appropriate cases, and for a time was fairly satisfactory. Gradually it became more and more difficult to make all cases accord with this scheme because of seeming contradictions in history, symptoms and findings. A young man who denied venereal history or injury would present himself with symptoms of urinary disorder, and upon examination the membranous and spongy urethra would be found free from stricture. Some obstruction might be felt in the prostatic urethra, but rectal examination would show the prostate not enlarged, and besides, the man's age precluded hypertrophy. Clearly this case could not be grouped in the foregoing classification. Another patient would be a man of middle age whose symptoms pointed to bladder stone. Interruption of the stream would be marked and terminal pain felt beneath the glans

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